

# City of Scottsdale

**2003**



**SUPPLEMENTAL  
STANDARD DETAILS  
FOR  
PUBLIC WORKS  
CONSTRUCTION**

## 2100 Series

General Information

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## 2200 Series

Street Information

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## 2200 Series

Street Information Cont'd

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2330 *	Water Service Line Connection
2332	Chlorine Injection Tap
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2345–2	3", 4", 6" Water Meter
2346	Temporary Construction Meter
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2349	Water Quality Sampling Station
2351	Double Check Valve Backflow Prevention Assembly For Assemblies 3" Thru 10"
2352	Double Check Valve Backflow Prevention Assembly For Assemblies 3/4" Thru 2 1/2"
2353	Reduced Pressure Principle Backflow Prevention Assembly For Assemblies 3" Thru 10"
2354	Reduced Pressure Principle Backflow Prevention Assembly For Assemblies 3/4" Thru 2 1/2"
2355	Pressure Vacuum Breaker Assembly For Assemblies 1/2" Thru 2"
2356	Guard Posts For Backflow Prevention Assemblies

NOTE: \* - Indicates New Or Revised Details For 2003 Supplement.

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DETAIL NO.

**2100-1**

### 2300 Series Water Information Cont'd

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2360	"N" Shaped Reduced Pressure Principle Backflow Prevention Assembly For Assemblies 3" Thru 10"
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2363	Pavement Markers For Fire Hydrants
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### 2600 Series Landscape Information

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2600-2	Minimum Tree Size Requirements
2600-3	Minimum Tree Size Requirements
2610 *	Typical Wire Connection
2620-1	Landscape Details
2620-2	Landscape Details

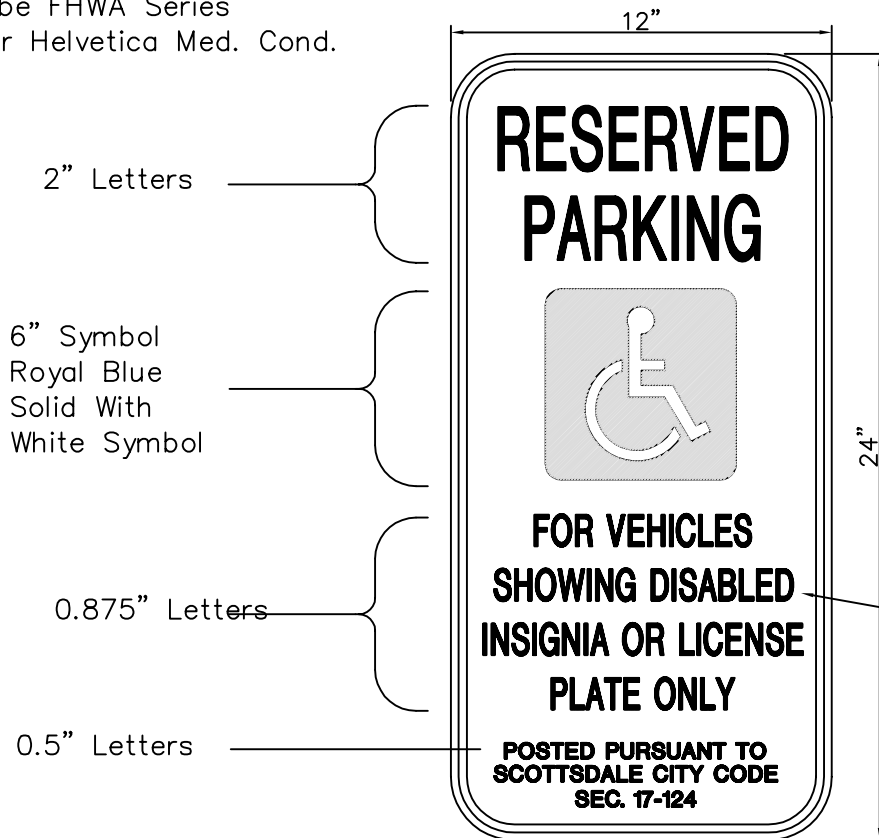
### 2600 Series Landscape Information

2620-3	Landscape Details
2631	Irrinet Pedestal Mounted Controller
2632	Scorpio Pedestal Mounted Controller
2633 *	Scorpio Wall Mounted Controller
2634	Irrinet Wall Mounted Controller
2635-1	Solar Controller
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2636	Irrigation Push Button Control
2641-1	Single & Multi-Outlet Emitters
2641-2	Irrigation Emitter Layout
2642 *	Irrigation Trenching
2643	Irrigation Thrust Block
2644	Rotor Sprinkler Assembly
2645	Pop-Up Sprinkler Assembly
2646	Shrub Pop-Up Sprinkler Assembly
2647 *	Drip Filter & Pressure Regulator
2648	Emitter Flush Cap Assembly
2649 *	Quick Coupler Assembly
2650 *	1-1/2" & Smaller Mainline Ball Valve
2651 *	2" & Larger Mainline Isolation Valve
2652 *	2" Or Smaller Master Valve/Flow Meter
2653 *	3" Or Larger Master Valve/Flow Meter
2654 *	Remote Control Valve Assembly
2680-1	Trail Access Gates
2680-2	Trail Access Gates
2681	Trail Water Bars
2682	Trail Safety Barriers
2683	Trail Signs

NOTE: \* - Indicates New Or Revised  
Details For 2003 Supplement.

NOTE:

Lettering shall be FHWA Series  
"B" alphabet, or Helvetica Med. Cond.



MOUNTING OPTIONS (SEE PLANS)

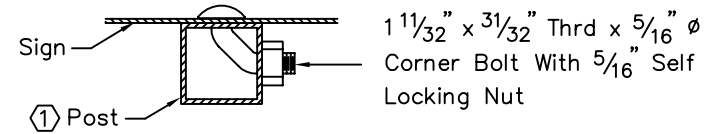
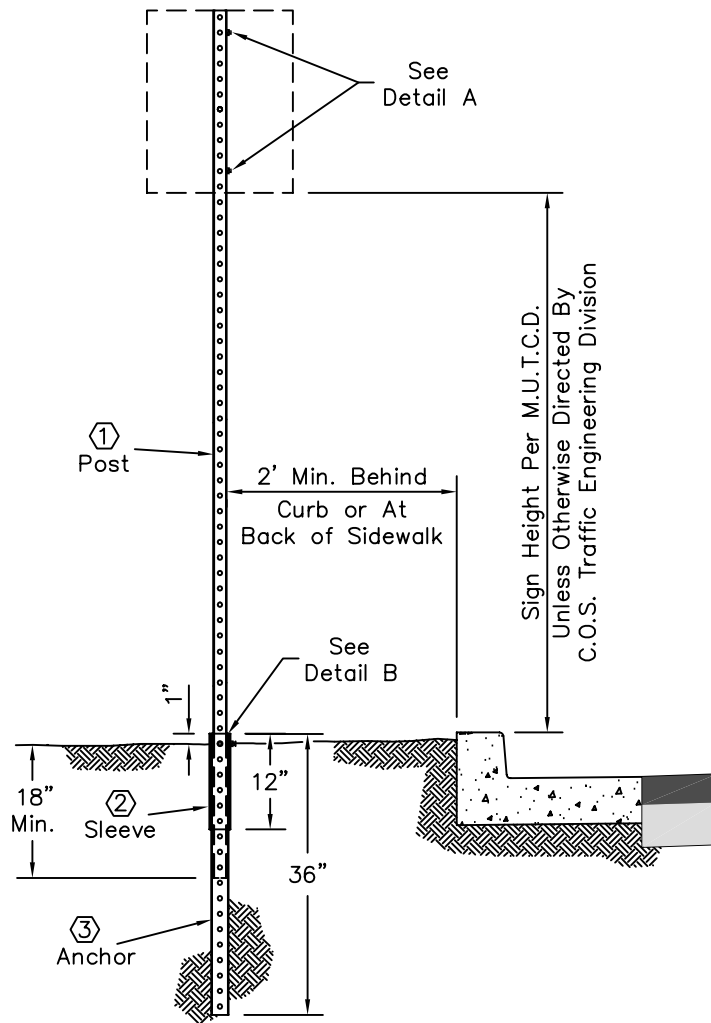
- A) Flexible P.E. Post With Surface Mount Base – Epoxy To Pavement Surface
- B) Perforated Galvanized Tubing Per COS Detail 2131. Install In Landscape Areas Only.
- C) Surface Mount To Structure
- D) Mount As Detailed On Plans

Green Borders and Text,  
and Blue Symbol on White  
Retroreflective Background (Typ.)  
Background: Super  
Engineer Grade Or  
High Intensity Sheeting  
Copy: Same As Above  
Substrate: 0.080 Gauge  
Treated Aluminum

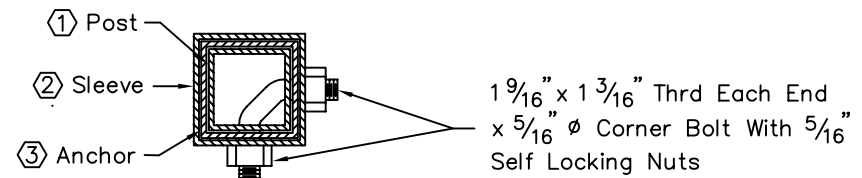
**ACCESSIBLE SIGNAGE**

One Sign At Each  
Accessible Parking Stall

Bottom Of Sign Shall Be  
Not Less Than 3 Feet  
Nor More Than 6 Feet  
Above Finish Surface



Detail A  
Sign Mounting



Detail B  
Anchor Assembly

### Legend

- ① Post -  $1\frac{3}{4}" \times 1\frac{3}{4}"$  Square Perforated 0.105" Galvanized Steel Tubing (Green Finish)
- ② Sleeve -  $2\frac{1}{4}" \times 2\frac{1}{4}" \times 12"$ , Square Perforated 0.105 Galvanized Steel Tubing (Green Finish)
- ③ Anchor -  $2" \times 2" \times 36"$ , Square Perforated 0.105" Galvanized Steel Tubing (Green Finish)

### NOTE:

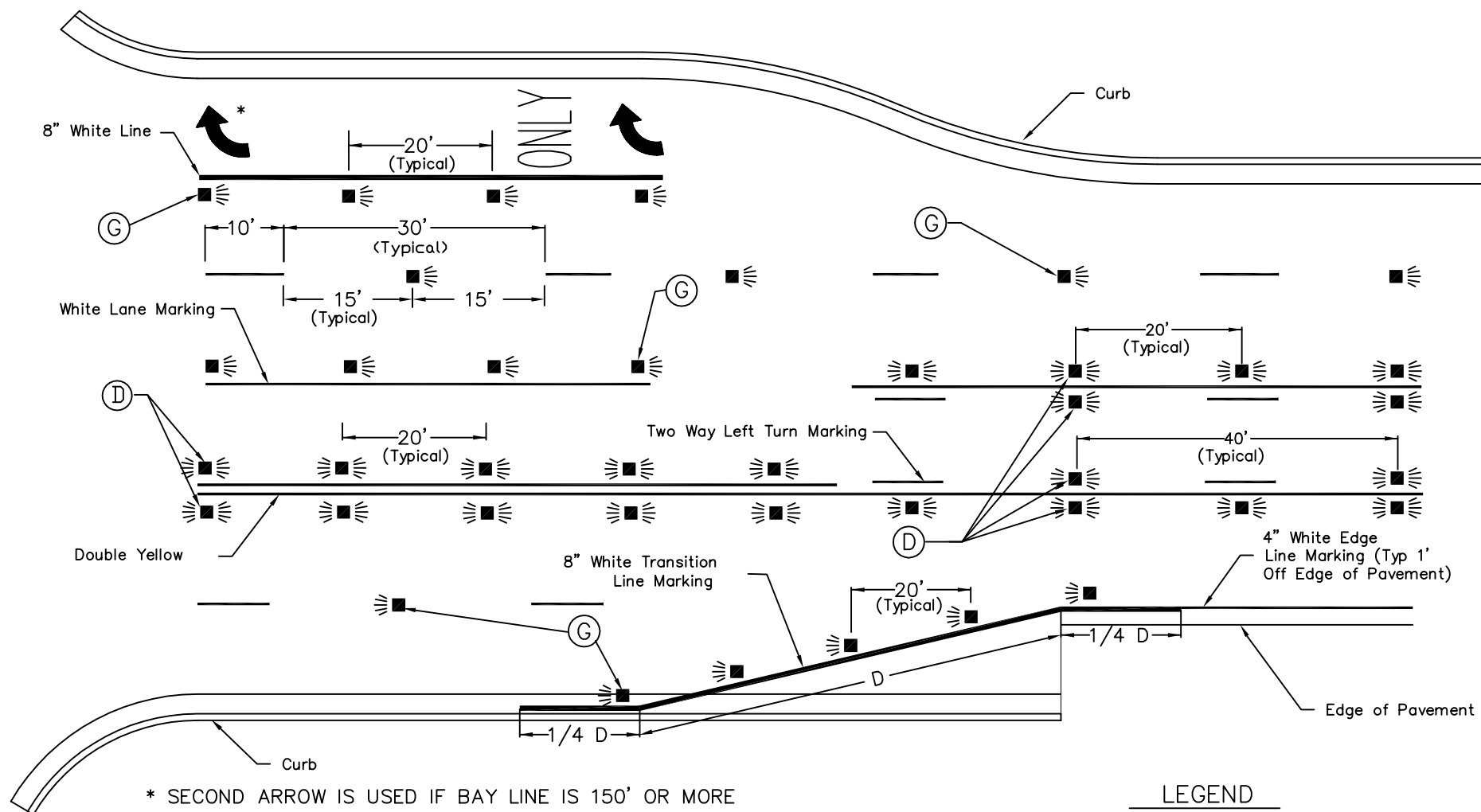
1. Sign Post, Sleeve And Anchor Per COS Supplemental Spec. Section 402.3

DETAIL NO. 2131 City of Scottsdale  
Standard Details

APPROVED BY: \_\_\_\_\_

SIGN POST INSTALLATION

DETAIL NO. 2131



# LEGEND

- ⊙ - TYPE "G" WHITE, ONE WAY REFLECTIVE
- ⊙ - TYPE "D" YELLOW, TWO WAY REFLECTIVE

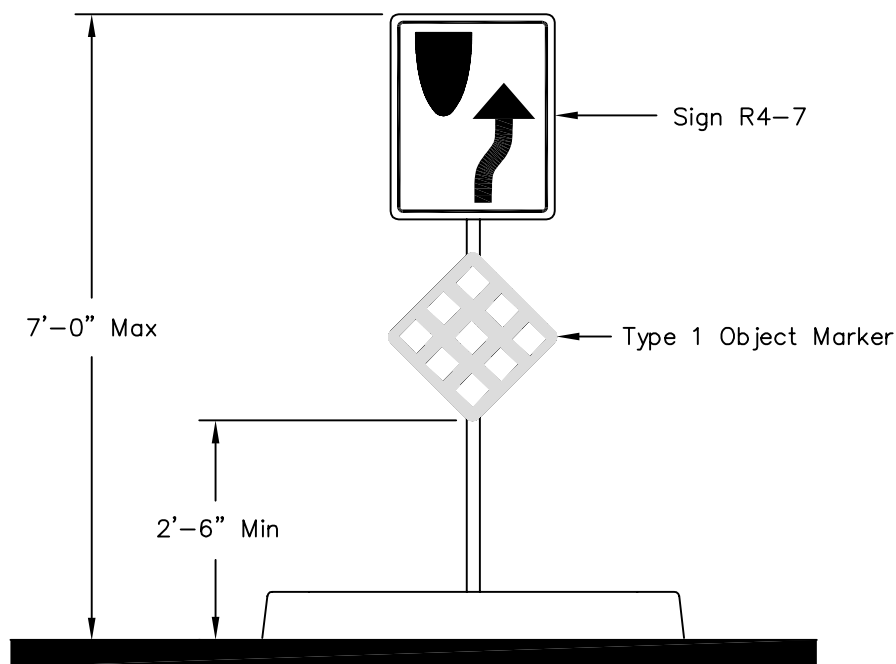
REFERENCE ADOT STD DRAWINGS 4-M-2.03 AND 4-M-2.04

SEE STANDARD DETAIL 2363 FOR FIRE HYDRANT MARKERS

DETAIL NO. 2132 City of Scottsdale  
Standard Details

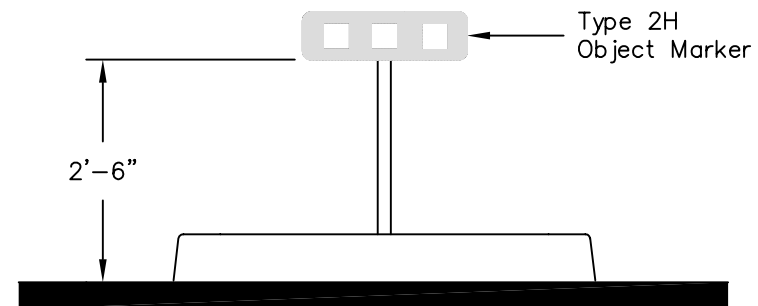
## RAISED PAVEMENT MARKER LAYOUT

DETAIL NO. 2132



TYPE "A"

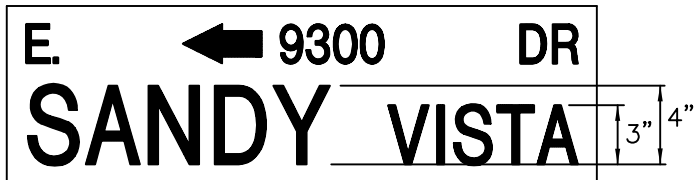
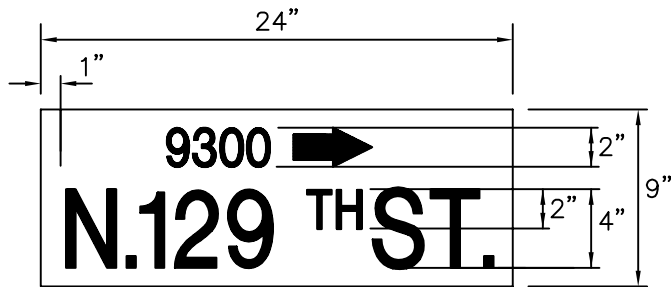
(AT SIGNALIZED INTERSECTIONS  
OR AS SHOWN ON PLANS AND FIRST &  
LAST NOSE ON A STRING OF MEDIANS)



TYPE "B"  
(ALL OTHER MEDIANS)

NOTES:

1. See COS Std Det 2225 Or 2226  
For Typical Location.
2. Sign Posts Per COS Std Det 2131.



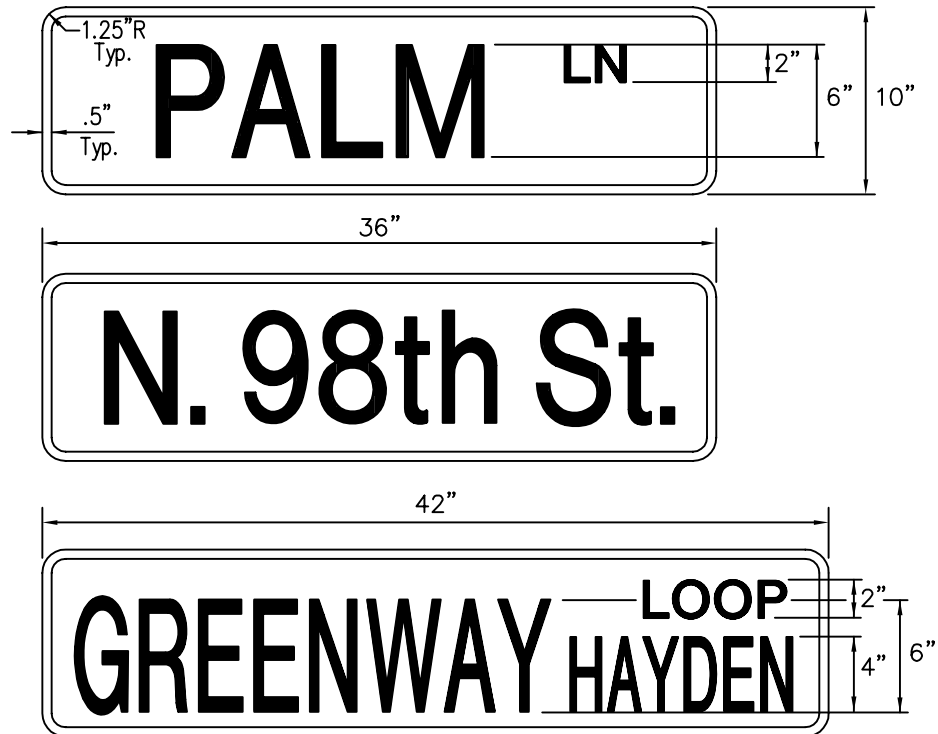
### **TYPE A SIGNS**

Type IIA Super Engineering Grade  
Green/White (2 Sides)

Blank Sizes: 9"x 24", 9"x 30",  
9"x 36", 9"x 42"

Intended Usage: Type "A" Street Name Signs shall be used in residential areas where Residential Streets intersect with Local Collector Streets. See the COS General Plan for Street Designations.



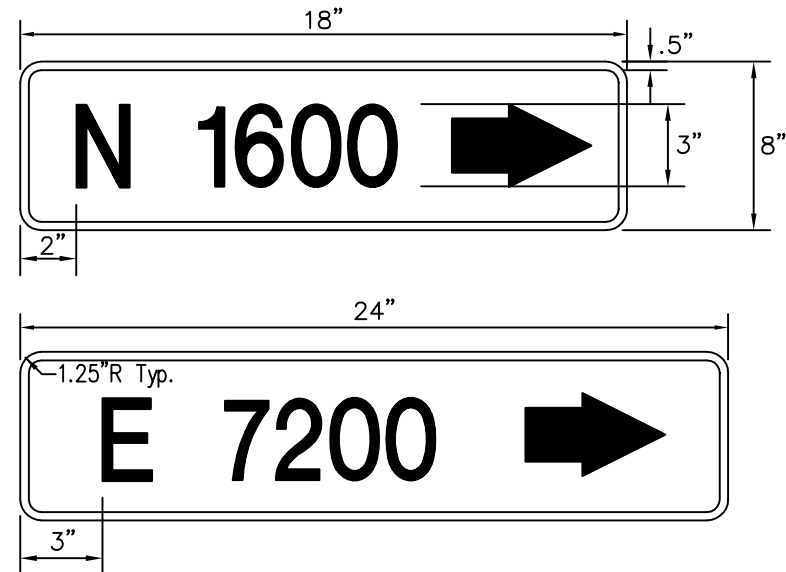


### TYPE B SIGNS

Type III High Intensity Grade  
Green/White (2 Sides)

Blank Sizes: 10"x 36", 10"x 42"

Intended Usage: Type "B" Street Name Signs shall be used where a Residential Street or a Local Collector Street intersects with a street with a classification of Major Collector or larger. See the COS General Plan for Street Designations.

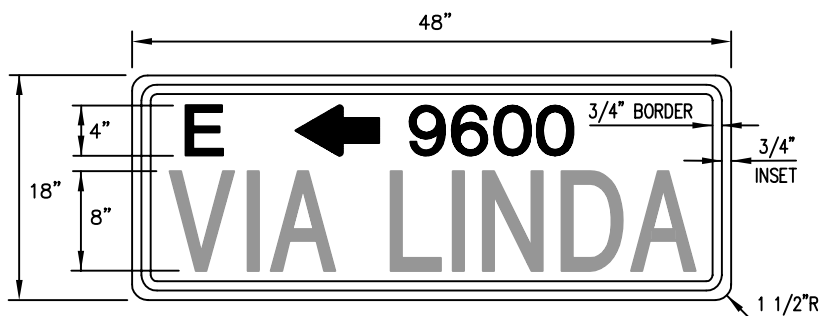
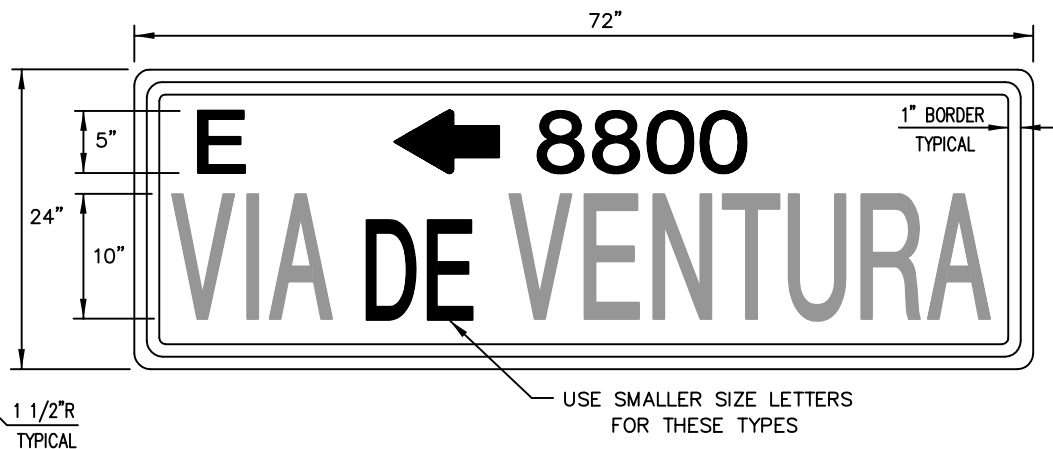
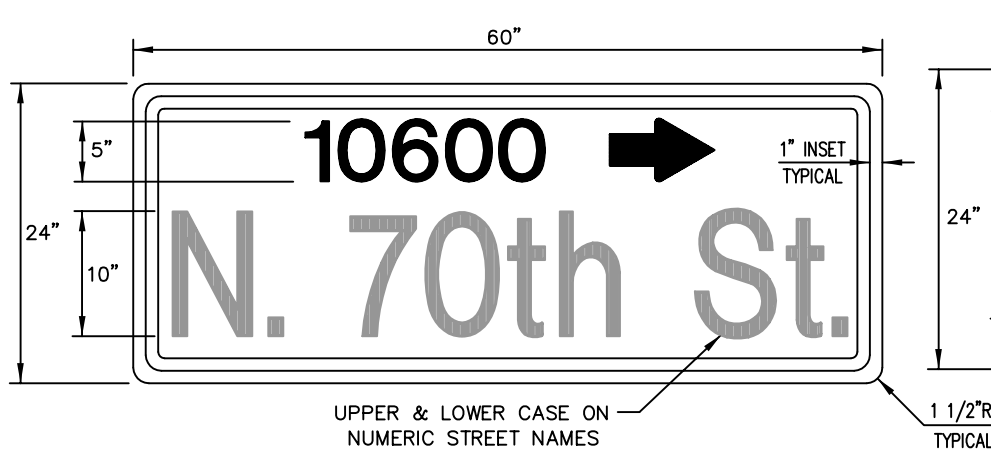


### TYPE B BLOCK NUMBERS

Type III High Intensity Grade  
Green/White (1 Side)

Blank Sizes: 8"x 18", 8"x 24"

Type "B" Block Numbers to be mounted with Type "B" Street Name Signs.



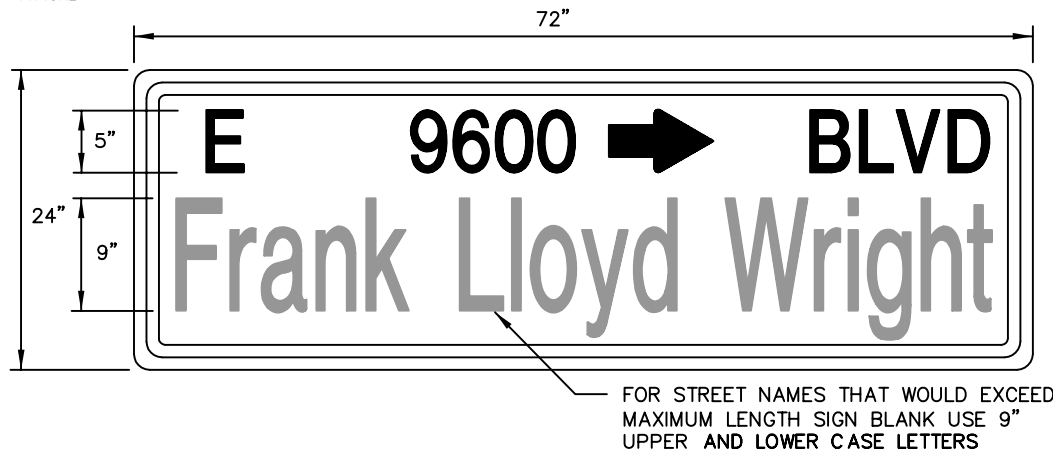
### 18" METRO SIGNS

Diamond Grade Intensity – Green/White (1 Side)

Typestyle = Highway Gothic, Modify C or D

Blank Sizes: 18"x 48", 18"x 60", 18" x 72"

Intended Usage: 18" Metro Street Name Signs shall be used on minor roads with a speed limit of 35MPH or lower. See the COS General Plan for Street Designations.



### 24" METRO SIGNS

Diamond Grade Intensity – Green/White (1 Side)

Typestyle = Highway Gothic, Modify C or D

Blank Sizes: 24"x 60", 24"x 72", 24" x 84"

Intended Usage: 24" Metro Street Name Signs shall be used on major roads with a speed limit of 35MPH or higher. See the COS General Plan for Street Designations.

DETAIL NO.

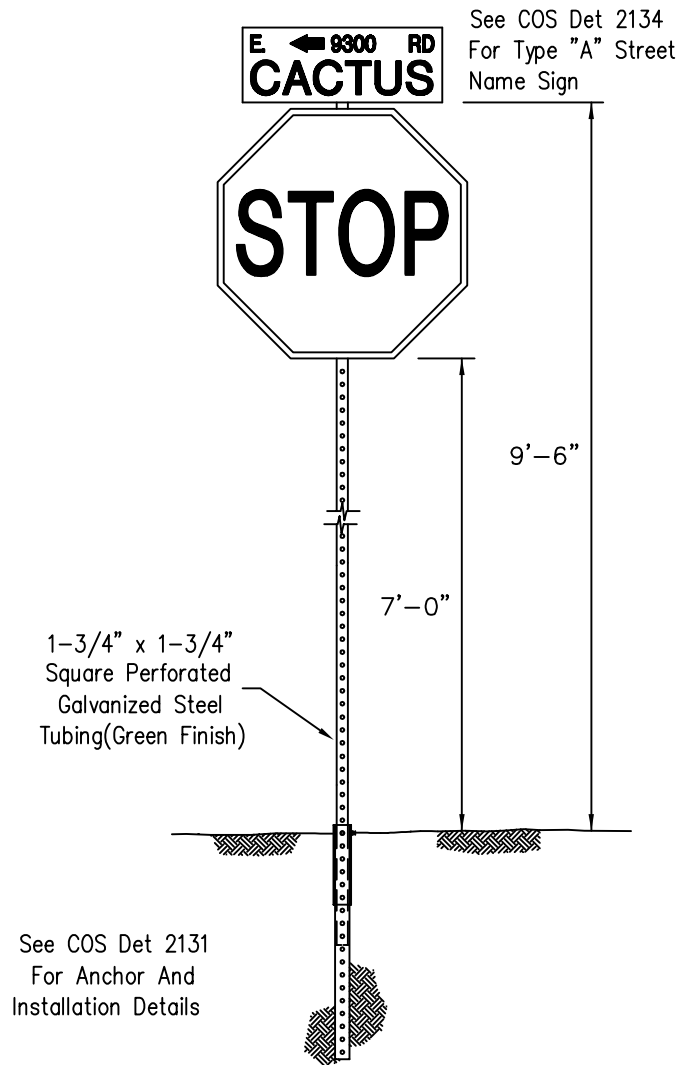
2134-3

City of Scottsdale  
Standard Details

## STREET NAME SIGNS - 18" AND 24" METRO

DETAIL NO.

2134-3



NOTES:

Street name sign and stop sign mounting height shall be measured from adjacent grade of sidewalk, top of curb or top of nearest pavement.

When no stop sign is required the street name sign is mounted at 9 feet 6 inches.

When two street name signs are mounted one on top of the other, the height is measured to the bottom sign.

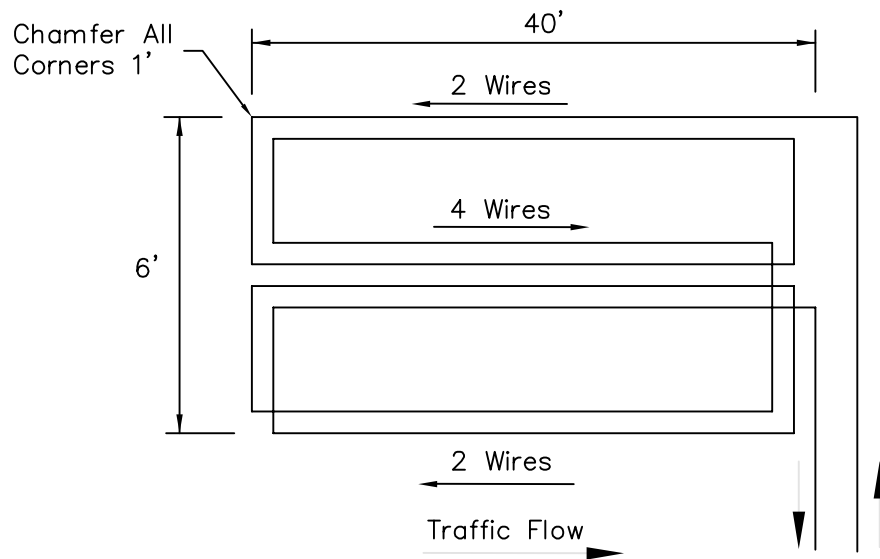
DETAIL NO.  
**2135**

**City of Scottsdale  
Standard Details**

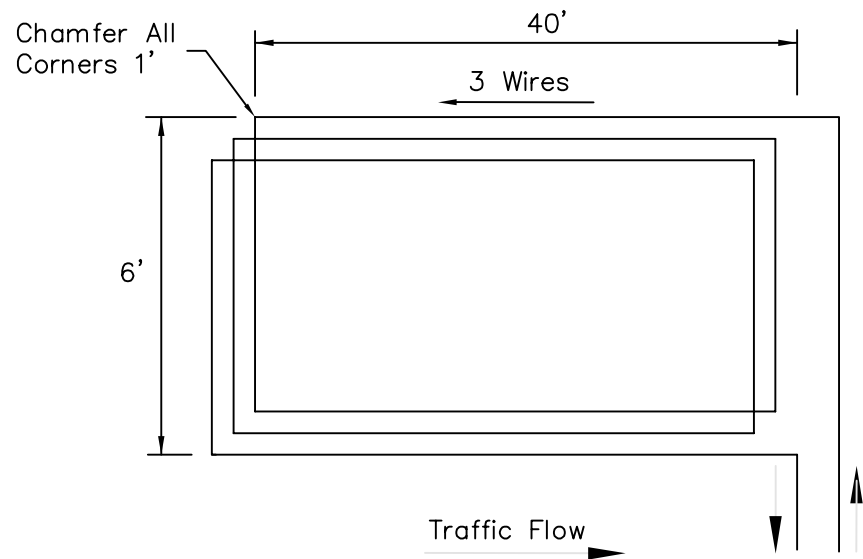
# STREET NAME SIGN INSTALLATION

DETAIL NO.  
**2135**

DETAIL NO.  
**2136**



**QUADRUPOLE LOOP DETECTOR**  
**For Left Turn Lanes Only**



**STANDARD LOOP DETECTOR**

**NOTES:**

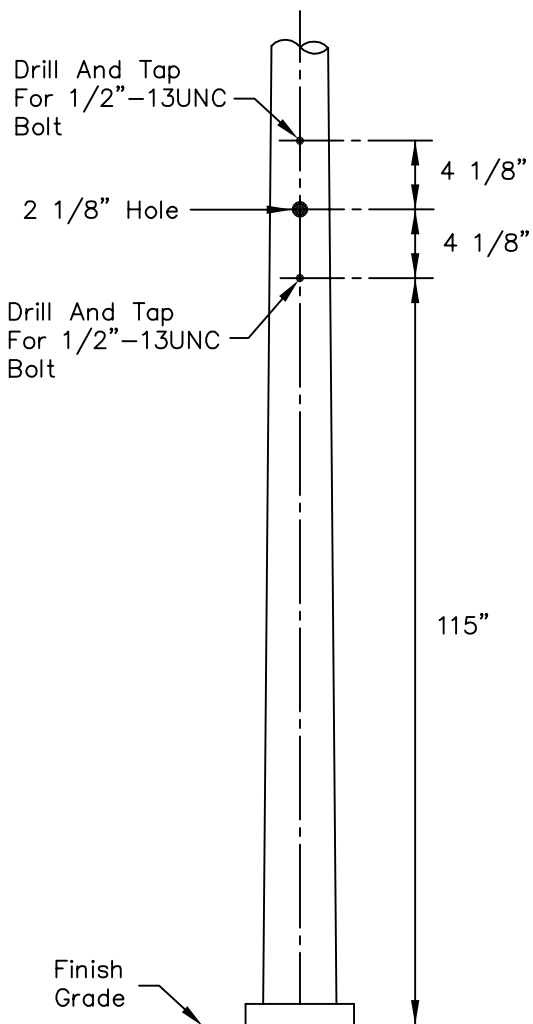
1. All loop detectors shall be wire-in-duct type wire. (Detect-a-Duct or approved equivalent, #14 stranded inside a 1/4" PVC tubing (IMSA 51-5).
2. All loop detectors shall be centered in the middle of the applicable traffic lane. Loop shall be sufficiently dimensioned on the plans. Loop detectors shall extend five feet into the crosswalk unless directed otherwise by the Traffic Engineering Department.
3. A rectangular loop with 3 turns (6 feet x 40 feet) shall be used for all through lanes.
4. A quadrupole loop with 2 outside turns and 4 inside turns (6 feet x 40 feet) shall be used in all exclusive left-turn lanes. (Wire in middle cut shall run the same direction).
5. Loop detectors shall not be installed in exclusive right turn lanes.
6. The location of permanent count detector loops shall be specified by the Traffic Engineering Department. Count detector loops shall consist of a minimum of 4 turns (6 feet x 6 feet).

7. Pre-formed loop detectors conforming to the latest ADOT specifications shall be used under decorative pavement, "pavers", concrete, or other "special" roadway surfaces, or as directed by the Traffic Engineering Department.
8. Lead-in cable between loop wire and controller shall be latest ADOT specification or approved equivalent (IMSA 50-2).
9. Loop lead-in and splices in pull box shall be twisted and soldered. Griggs Loop Detector Sealant, 3-M Loop Sealant, or approved equivalent shall be used.
10. Loops shall be installed prior to the installation of the final pavement lift (if part of a paving project).
11. Loops shall be inspected and tested prior to acceptance by the City.
12. See ADOT TS 7-1 for installation details.

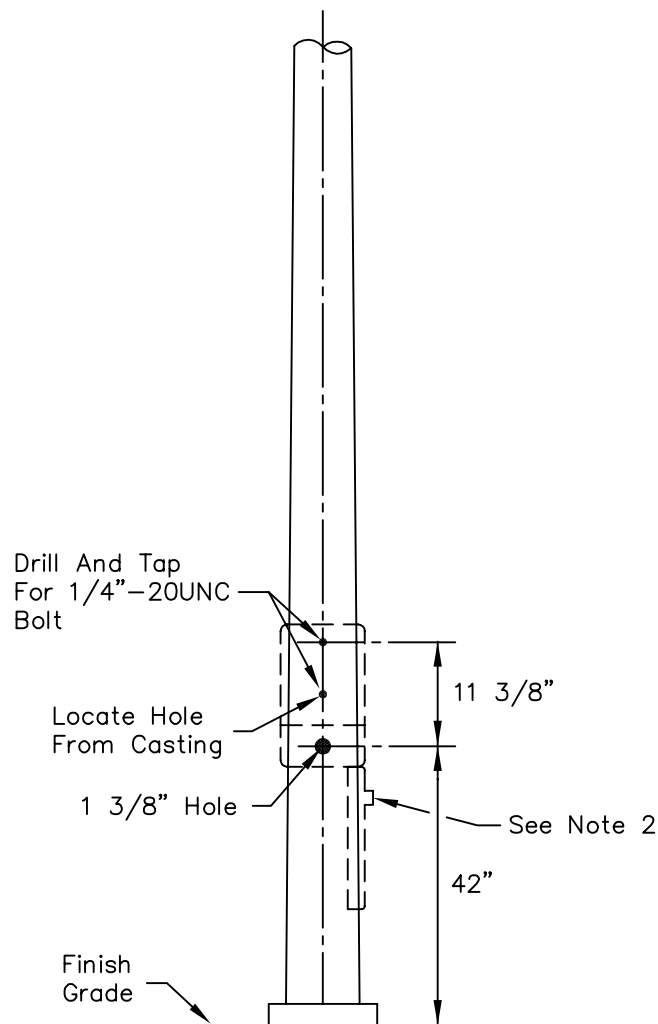
DETAIL NO. **2137** **City of Scottsdale**  
**Standard Details**

# **LOOP DETECTORS**

DETAIL NO. **2137**



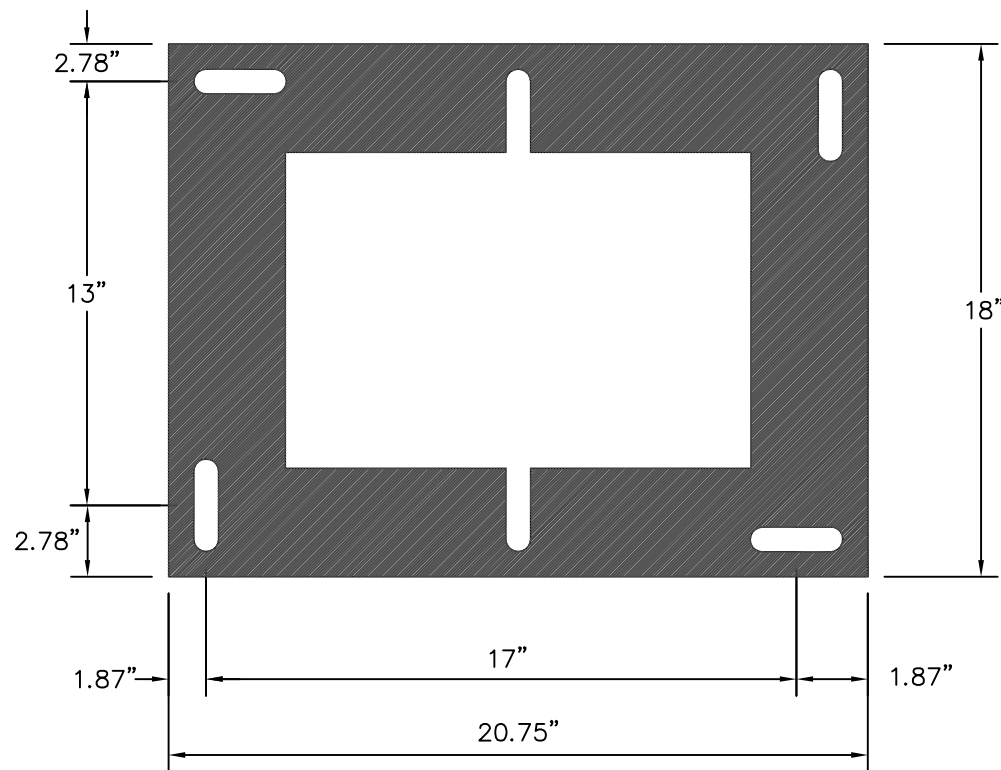
**SIDE MOUNT DRILLING DETAIL**



**PUSH BUTTON DRILLING DETAIL**

NOTES:

1. Drilling of pole to be oriented according to pole layout, or as directed by C.O.S. Engineer in the field.
2. When two pedestrian push button assemblies are mounted on a small diameter pole the lower assembly shall be positioned upside down so that the push button is at the top and the sign is below.
3. Top mounting holes to be field drilled in order to allow for manufacturing variations.
4. Push button shall be A.D.A large target style (ADOT Type I).



INSIDE VIEW OF BOTH  
SIDES OF BASE EXTENDER

1. Model 330 cabinet base extenders will include cutouts that will accommodate replacement with all other Scottsdale 330 cabinets and model 336S. These base extenders are available from the cabinet manufacturer. All Scottsdale cabinets are foundation mounted.
2. Foundation must include a 4" x 24" x 24" concrete pad in front of the cabinet door.
3. The cabinet shall be mounted in such a way that when the technician has the door open and is facing the cabinet, he is also facing the intersection.
4. Cabinet base extender shall have a 12" x 12" removable access panel. Base extender shall be installed so that access panel is on door side of cabinet.

DETAIL NO.  
**2139**

**City of Scottsdale**  
**Standard Details**

# TRAFFIC SIGNAL CONTROLLER CABINET BASE EXTENDER

DETAIL NO.  
**2139**

## LOOP AND PEDESTRIAN PUSH BUTTON INPUTS

Slot 1	Slot 2	Slot 3	Slot 4	Slot 5	Slot 6	Slot 7	Slot 8	Slot 9	Slot 10	Slot 11	Slot 12	Slot 13	Slot 14
1 AB Ph 1	3 AB Ph 2	5 AB Ph 3	7 AB Ph 4	9 AB Ph 5	11 AB Ph 6	13 AB Ph 7	15 AB Ph 8	17 AB 2 PPB	19 AB 4PPB	21 AB RRPre	23 AB AdvEn	25 AB EV A	27 AB Stop Time
2 AB Ph 1	4 AB Ph 2	6 AB Ph 3	8 AB Ph 4	10 AB Ph 5	12 AB Ph 6	14 AB Ph 7	16 AB Ph 8	18 AB 6 PPB	20 AB 8PPB	22AB Flash	24 AB Adv	26 AB EV B	28 AB 6 Call
Det Loops	Det Loops	Det Loops	Det Loops	Det Loops	Det Loops	Det Loops	Det Loops	Ped Push Buttons	Ped Push Buttons	-----	-----	Pre- Empt	Slot 14 ----- Slot 14

1. All Scottsdale model 330 cabinet input racks have 14 slots.
2. Slots 1–8 are for vehicle detector loops.
3. Phase 4 loops are terminated on slot 4 (7A&B and/or 8A&B).
4. Phase 4 pedestrian push button is terminated on 19A and ppb neutral on 19B.
5. 19B shall have a jumper to the neutral bar.
6. All two phase intersections are to be wired to phases 2 and 4.
7. Field output wiring for 2 phase signals shall be wired to 2R, 2Y, 2G and 4R, 4Y, 4G.
8. Ped field wiring shall be wired to 9R, 9G (Phase 2 Ped) and 10R, 10G (Phase 4 Ped).
9. Call COS Traffic Signals (480)312–5635 prior to wiring cabinet for instructions for intersections with more than 2 phases.

DETAIL NO.  
**2140**

**City of Scottsdale  
Standard Details**

## MODEL 330 INPUT RACK WIRING INSTRUCTIONS

DETAIL NO.  
**2140**



**MAIN DIRECTIONS**

Direction	Color
<b>WB</b>	<b>Blue</b>
<b>EB</b>	<b>Green</b>
<b>NB</b>	<b>Red</b>
<b>SB</b>	<b>Yellow</b>

**LEFT TURN DIRECTIONS  
(Main Color + White)**

Direction	Color
<b>WBLT</b>	<b>Blue + White</b>
<b>EBLT</b>	<b>Green + White</b>
<b>NBLT</b>	<b>Red + White</b>
<b>SBLT</b>	<b>Yellow + White</b>

**RIGHT TURN DIRECTIONS  
(Main Color + Black)**

Direction	Color
<b>WBRT</b>	<b>Blue + Black</b>
<b>EBRT</b>	<b>Green + Black</b>
<b>NBRT</b>	<b>Red + Black</b>
<b>SBRT</b>	<b>Yellow + Black</b>

**Color Of Wire For  
Power/Neutrals/Pushbuttons**

Wire	Color
<b>AC+ Power</b>	<b>Black</b>
<b>AC- (Neutral)</b>	<b>White</b>
<b>24V Pushbutton</b>	<b>Orange, Stranded</b>

WBLT = West Bound Left Turn and shall be the phase for vehicles facing west and turning to south  
 EBLT = East Bound Left Turn and shall be the phase for vehicles facing east and turning to north  
 NBLT = North Bound Left Turn and shall be the phase for vehicles facing north and turning to west  
 SBLT = South Bound Left Turn and shall be the phase for vehicles facing south and turning to east

WBRT = West Bound Right Turn and shall be the phase for vehicles facing west and turning to north  
 EBRT = East Bound Right Turn and shall be the phase for vehicles facing east and turning to south  
 NBRT = North Bound Right Turn and shall be the phase for vehicles facing north and turning to east  
 SBRT = South Bound Right Turn and shall be the phase for vehicles facing south and turning to west

DETAIL NO.  
**2141**

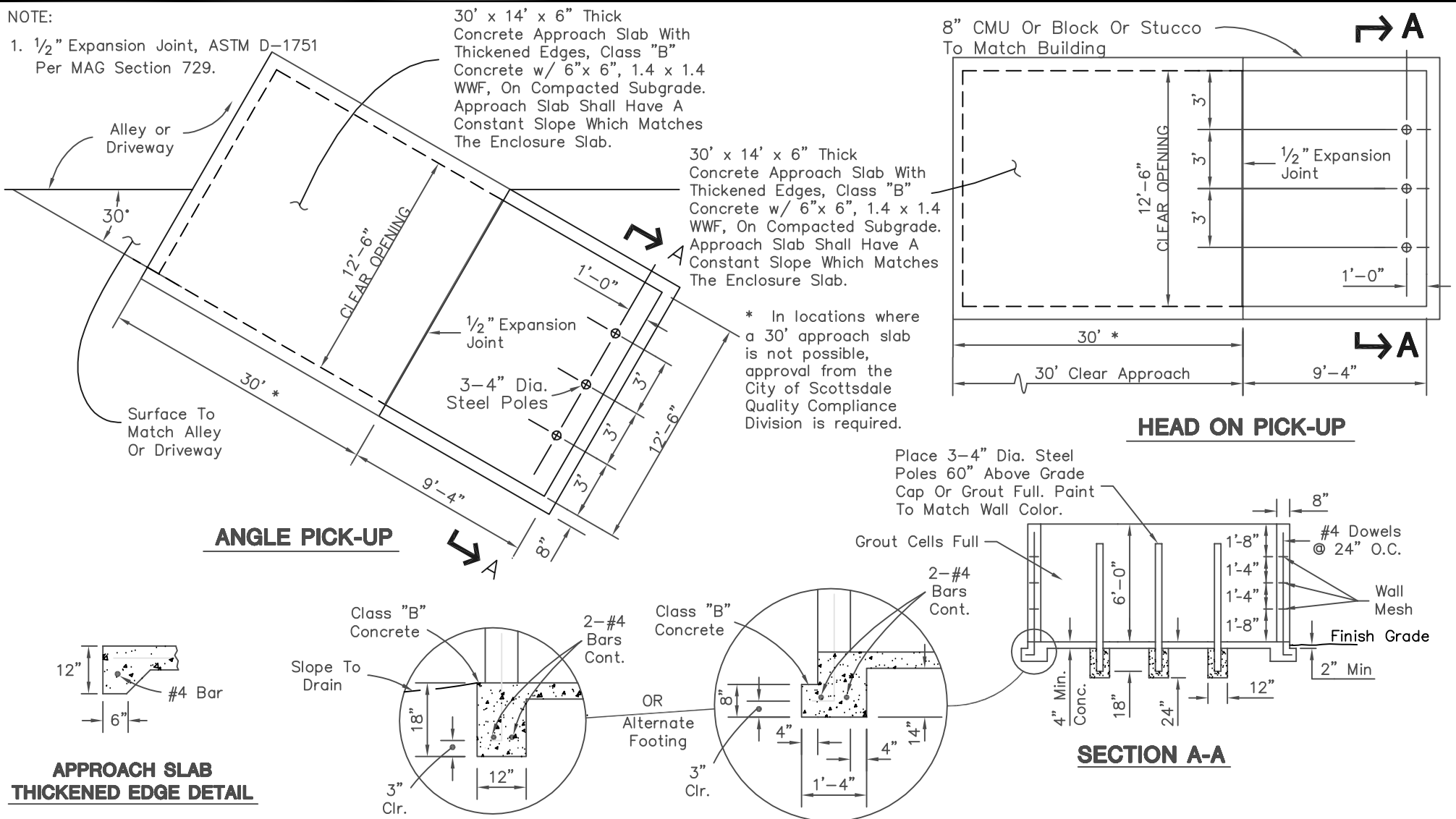
**City of Scottsdale  
Standard Details**

# **TAPE COLOR CODES FOR TRAFFIC SIGNAL WIRING**

DETAIL NO.  
**2141**

**NOTE:**

1. 1/2" Expansion Joint, ASTM D-1751 Per MAG Section 729.





Place 6-4" Dia. Steel Poles 60" Above Grade Cap Or Grout Full. Paint To Match Wall Color.

Grout Cells Full

#4 Dowels @ 24" O.C.

Class "B" Concrete

2-#4 Bars Cont.

### SECTION A-A

OR Alternate Footing

Slope To Drain (Typ)

2-#4 Bars Cont.

Class "B" Concrete

### APPROACH SLAB THICKENED EDGE DETAIL

Wall Mesh

Finish Grade

2" Min.

4" Min. Conc.

24"

18"

12"

8"

1'-8"

1'-4"

1'-4"

1'-8"

8" CMU Or Block Or Stucco To Match Building

30' x 23' x 6" Thick Concrete Approach Slab With Thickened Edges, Class "B" Conc. w/ 6"x 6", 1.4 x 1.4 WWF, On Compacted Subgrade. Approach Slab Shall Have A Constant Slope Which Matches The Enclosure Slab.

\* In locations where a 30' approach slab is not possible, approval from the City of Scottsdale Quality Compliance Division is required.

### PLAN

30' \*

30' Clear Approach

9'-4"

21'-6" Clear

Gates Must Open To 21'-6" Clear (Gate Details Per Plans)

1/2" Expansion Joint

1'-0"

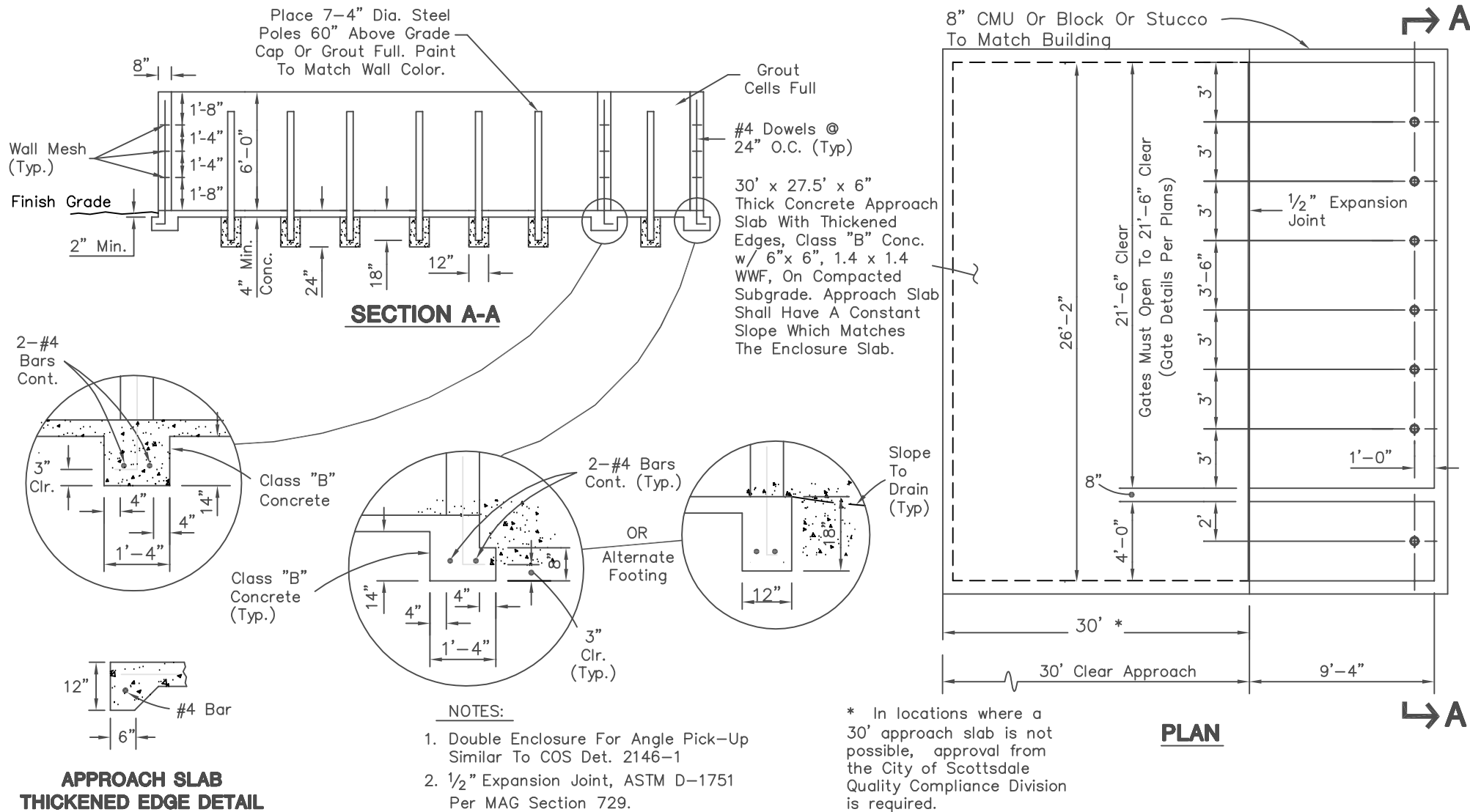
### NOTE:

1. Double Enclosure For Angle Pick-Up Similar To COS Det. 2146-1
2. 1/2" Expansion Joint, ASTM D-1751 Per MAG Section 729.

DETAIL NO. **2147-1** City of Scottsdale Standard Details

# DOUBLE REFUSE ENCLOSURE

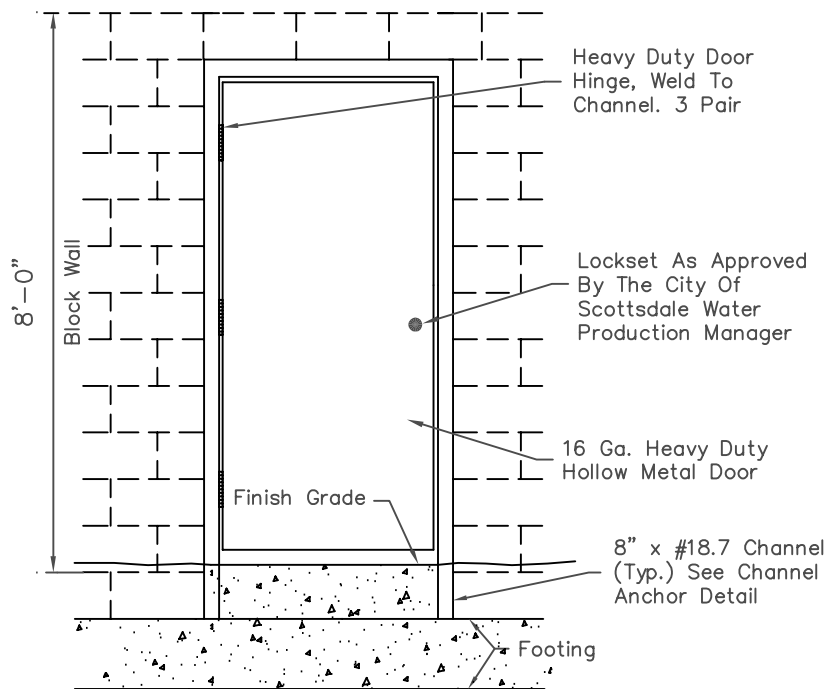
DETAIL NO. **2147-1**



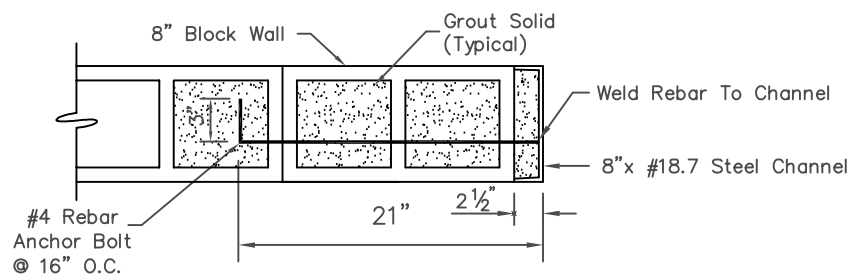
DETAIL NO. **2147-2** City of Scottsdale  
Standard Details

# **DOUBLE REFUSE ENCLOSURE W/ GREASE CONTAINMENT AREA**

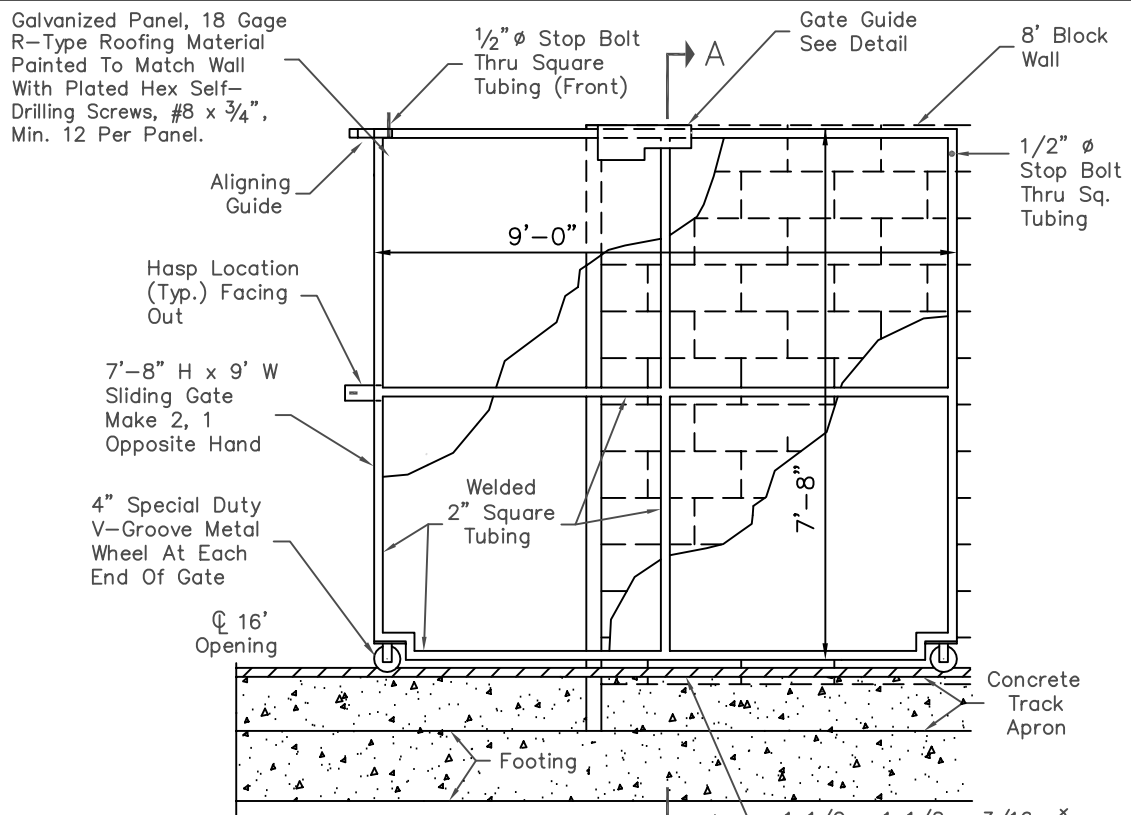
DETAIL NO. **2147-2**



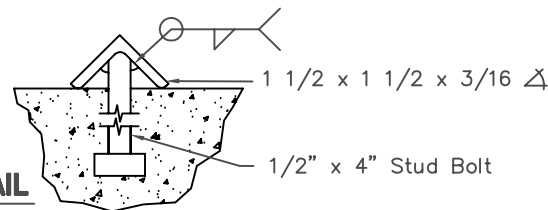
**HINGED DOOR**



**CHANNEL ANCHOR DETAIL**



**ELEVATION**



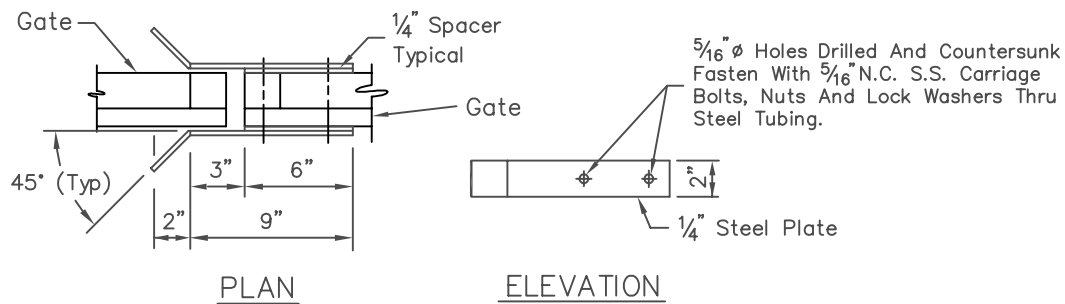
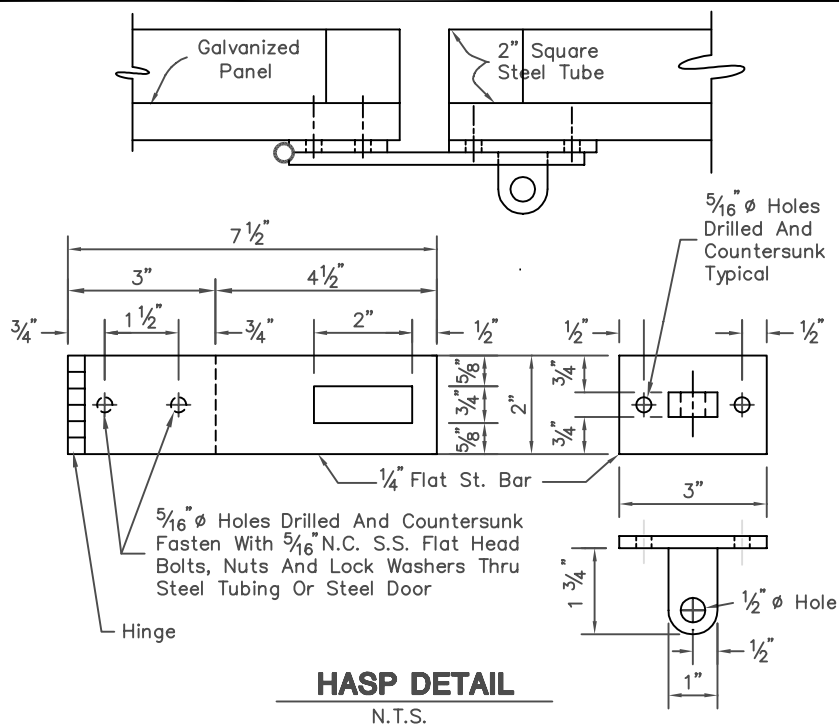
**TRACK DETAIL**

DETAIL NO. **2165-1** **City of Scottsdale**  
**Standard Details**

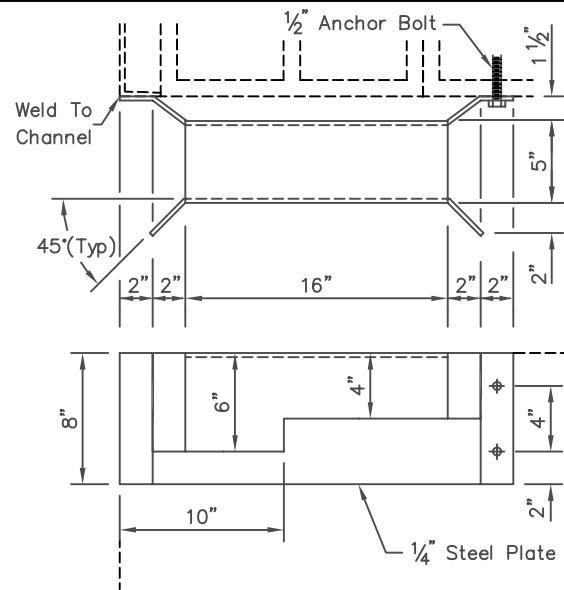
# 16' SLIDING GATE & HINGED DOOR

DETAIL NO. **2165-1**

DETAIL NO.  
**2165-2**

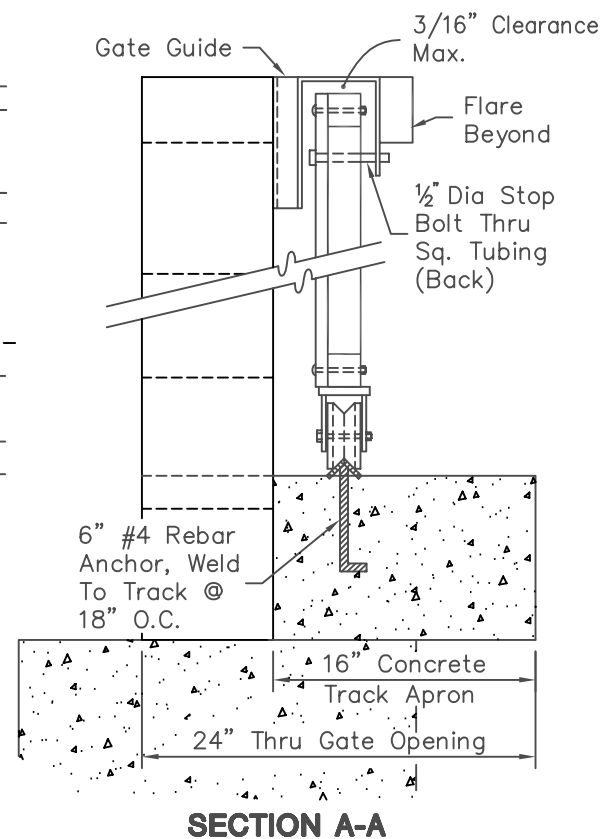


### ALIGNING GUIDE DETAIL



### **GATE GUIDE DETAIL**

(Make 2, 1 Opposite Hand)



## SECTION A-A

NOTES:

1. Contractor shall prime and paint all metal surfaces. Before application, the color and manufacturer of the paint shall be approved by the City.
2. Prior to painting, all surfaces shall be cleaned free of concrete, mortar, rust, dirt and any other objectionable materials.
3. Apply one (1) primer coat and two (2) exterior alkyd gloss enamel coats to metal.

DETAIL NO. <b>2165-2</b>	<b>City of Scottsdale</b> <b>Standard Details</b>	APPROVED BY: _____	<b>16' SLIDING GATE</b>	DETAIL NO. <b>2165-2</b>
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